

**UNITED STATES  
PATENT AND TRADEMARK OFFICE**



# **How to file a stellar patent application: A Discussion with University of Pittsburg Innovate and USPTO Primary Patent Examiners**

Robin Hylton, Moderator

Pritham Prabhakher

Albert Wong

Stephen Yanchuk

22 July 2022

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Patent examiners:

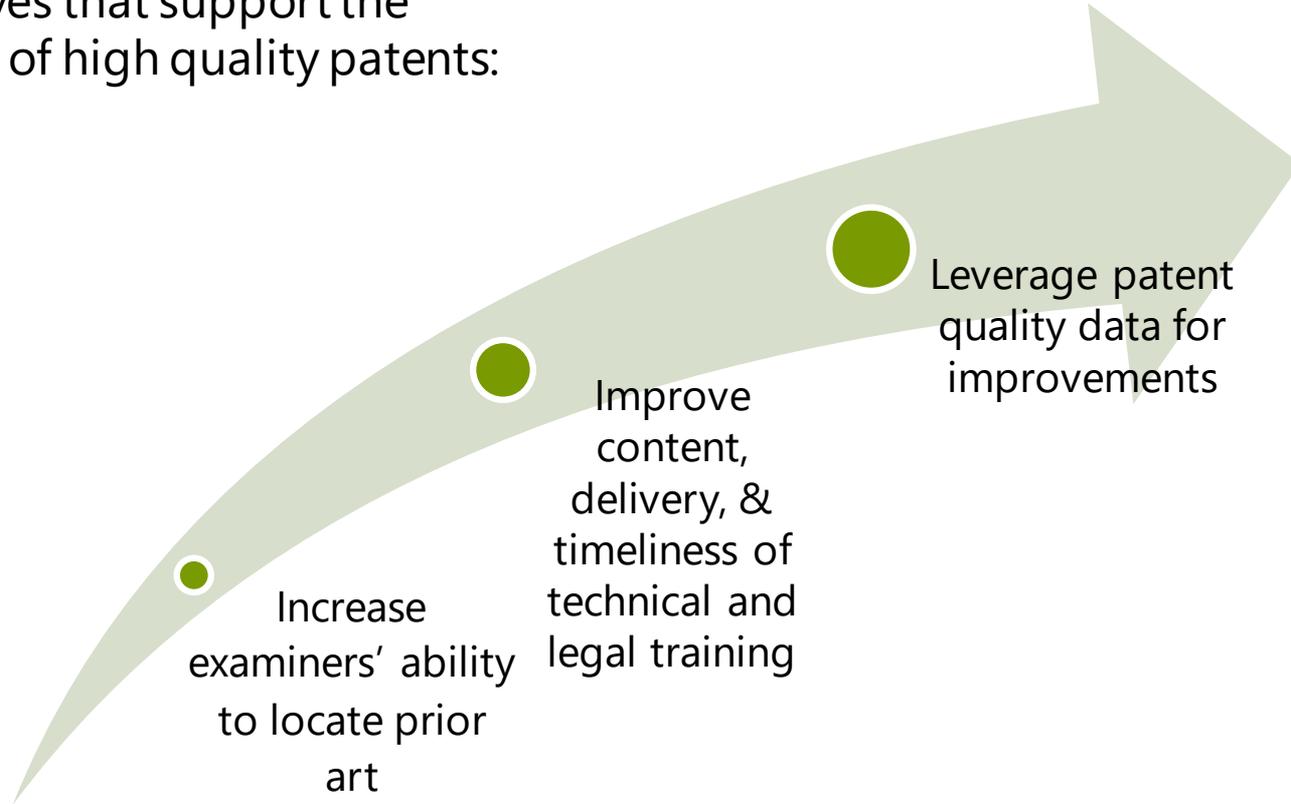
**How do you review a new application?**

# Quality patents

- Patents that are issued in compliance with all requirements of Title 35 of United States Code as well as relevant case law
- Can withstand post-grant challenges that may arise

# Optimizing patent quality

Initiatives that support the issuing of high quality patents:



# Application quality

- Filing a high quality application helps examiners with their search and overall prosecution quality
- Application readiness studies
  - Attributes integral to the patent application file that enhance the ability of examiners to efficiently and effectively navigate through examination

# Methodology

- Semi-annual survey to coincide with external quality perception survey
- Administered to random sample of 818 patent examiners covering all technologies and grades
- Assess internal and external factors that impact examiners' ability to provide high-quality patent examination

# Identify patent application attributes critical to examination



Identified application attributes that examiners felt best enhance their ability to efficiently and effectively navigate through examination

- Importance (need):
  - "Not Necessary" (0) to "Always Essential" (10)
- Frequency (experience):
  - "Almost Never" (0) to "Almost Always" (10)

# Summary of findings

## Top Needs

		Need	Experience	Gap
<b>Specifications</b>	Having the inventive concept clearly set forth	8.07	5.06	3.0
	Having the specification clearly describe the referenced features in the drawings	7.89	6.88	1.0
	Having the Drawings show the inventive concept	7.83	5.94	1.9
	Having the "Detailed Description of the Invention" expand on the invention disclosed in the "Summary"	7.59	7.07	0.5
	Having the preferred embodiments described in detail	7.43	6.07	1.4
	Using clear terms and correct grammar and syntax	7.74	5.50	2.2
<b>Claims</b>	Having claims that are clear and correct in syntax and grammar	8.76	5.85	2.9
	Having independent claims that capture the same inventive concept disclosed in specification	8.59	4.77	3.8
	Having claim terminology that is highly correlated with language disclosed in the specification	8.23	5.92	2.3
	Having claims that are solely directed to the inventive concept (not broader than the inventive concept)	7.45	3.08	4.4
	Having a reasonable/manageable number of claims	8.74	4.97	3.8
<b>IDS</b>	Having all citations in IDS in English (translations are provided with submission)	7.53	3.91	3.6
	Having a reasonable/manageable number of references cited in IDS	7.88	5.37	2.5

# Summary of findings

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# Summary of findings

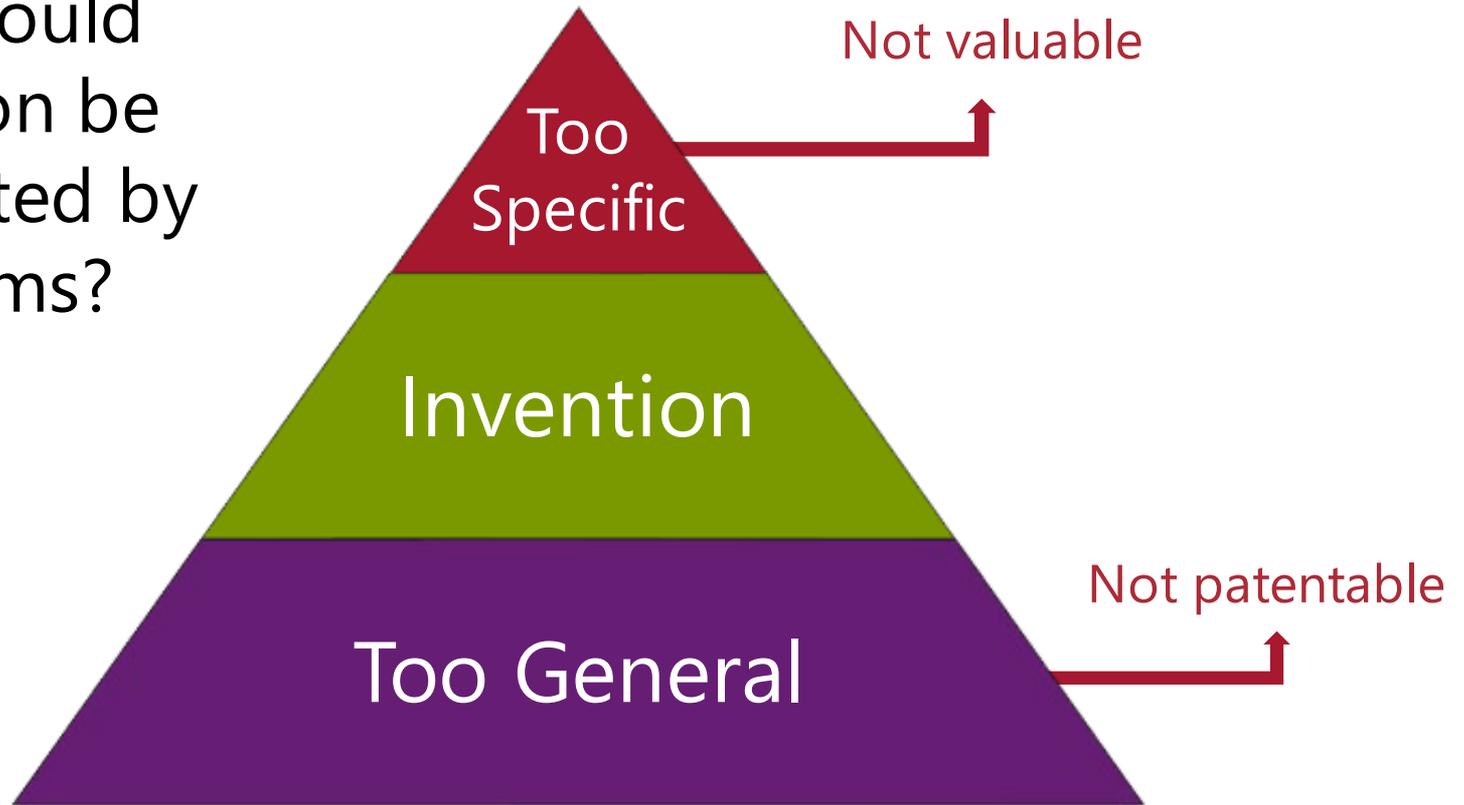
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	Having independent claims that capture the same inventive concept disclosed in the specification	8.59	4.77	3.8

# Summary of findings

		Need	Experience	Gap
<b>Specifications</b>	Having the inventive concept clearly set forth	8.07	5.06	3.0
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	Having the "Detailed Description of the Invention" expand on the invention disclosed in the "Summary"	7.59	7.07	0.5
	Having the preferred embodiments described in detail	7.42	6.07	1.4
	Using clear terms and correct grammar and syntax			
Having claims that are clear and correct in syntax and grammar				
		<b>Need</b>	<b>Experience</b>	<b>Gap</b>
Having reasonable/manageable number of claims		8.74	4.97	3.8
	Having a reasonable/manageable number of references cited in IDS	7.88	5.37	2.5

# Claims

How should invention be delineated by the claims?



# Before Drafting Claims

Prior to writing claim answer these questions:

- What is the invention?
- What are the pieces and parts that make up the invention?
- How do the pieces and parts relate to one another?
- Do you have more than one invention?
  - Tangible: Apparatus, machine, composition
  - Method: Making or Using
- Are there multiple versions of each invention?

# Claim Drafting DOs

- ✓ Particularly point out and distinctly claim the subject matter regarded as the invention
- ✓ Consider drafting your claims first and then your specification based on terms used in the claims
- ✓ Review both to make necessary additions and corrections so that the claim terms find support in the specification
- ✓ Look at the claims in patents issued in your field of technology
- ✓ Ensure each term has proper antecedent basis
- ✓ Think about what legal protection you need for your invention and tailor your claims accordingly

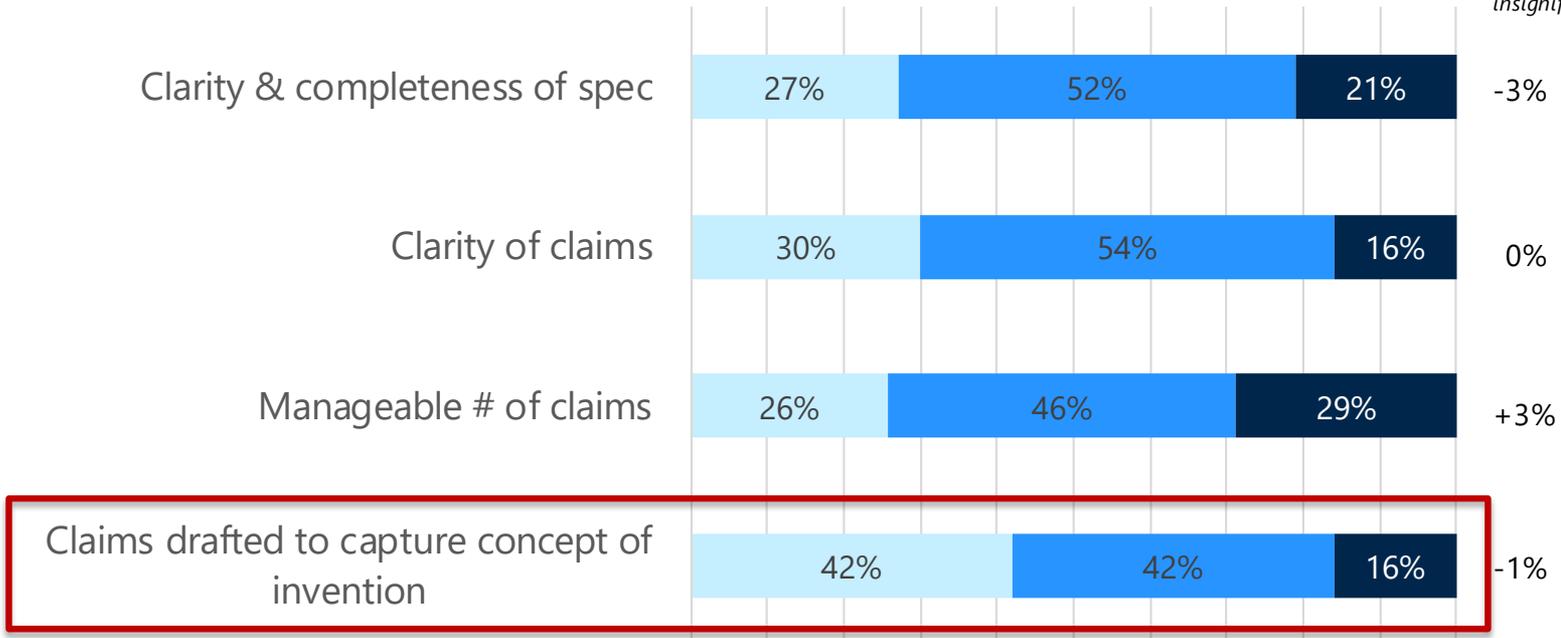
# Specification Cautions

- ✗ Should not use trademarks in the title or to describe structure (e.g., “VELCRO” to describe a hook and loop fastener), or using a mark (e.g. logo, brand) you intend to register for a commercialized product
- ✗ “Background of the Invention” section does not need to state how the inventor conceived the invention (e.g., “I came up with this idea while jogging”)
- ✗ Avoid making claims of possible future success (e.g., “This invention will sell and make millions” or “This invention will revolutionize the field”)
- ✗ Do not include a detailed discussion of the figures or refer to the reference characters in the “Brief Description of the Drawings” section
- ✗ Do not forget to proof read your specification to look for grammatical errors

# External factors – FY22Q2

Applicants facilitate high quality by:

*Change in % large extent from prior survey (all statistically insignificant unless noted)*



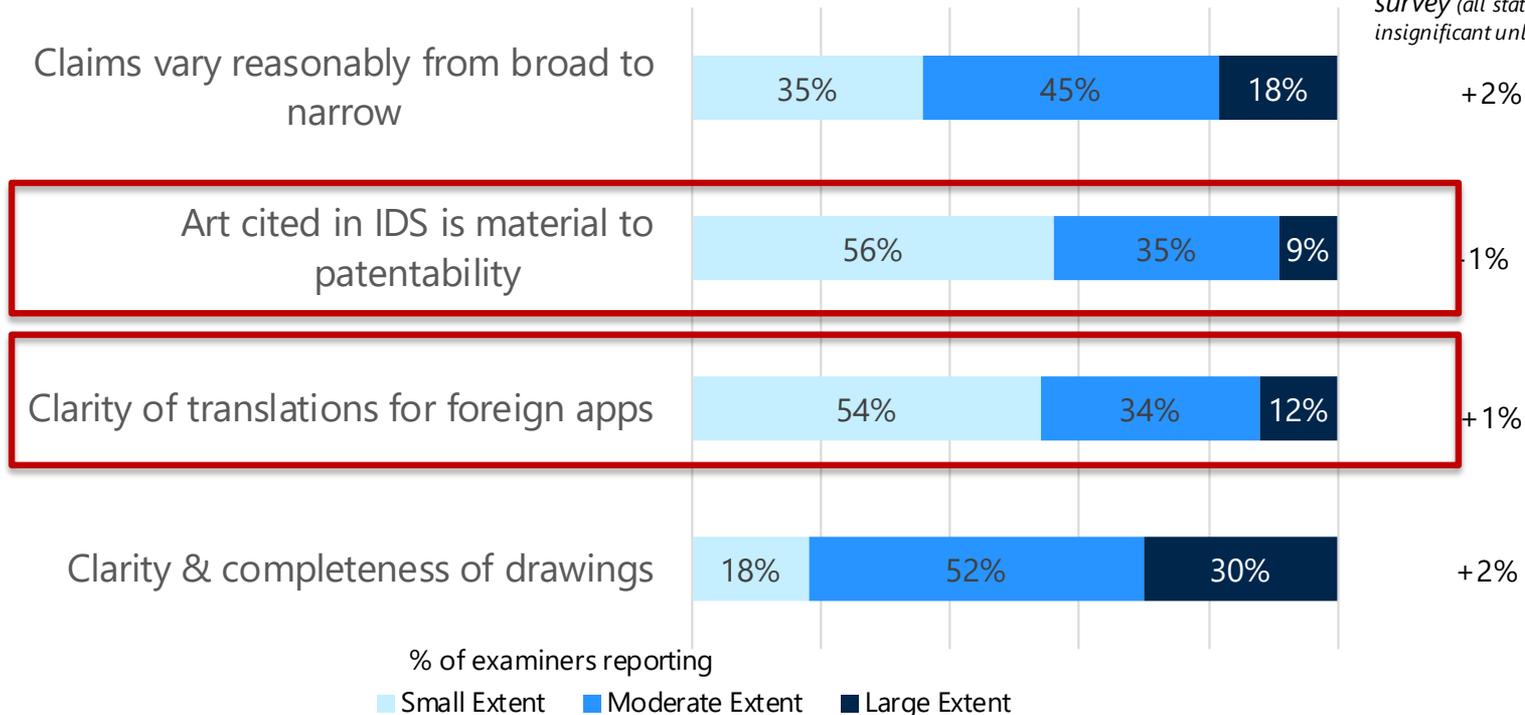
% of examiners reporting  
■ Small Extent    ■ Moderate Extent    ■ Large Extent

Source: USPTO FY22Q2 Internal Quality Survey

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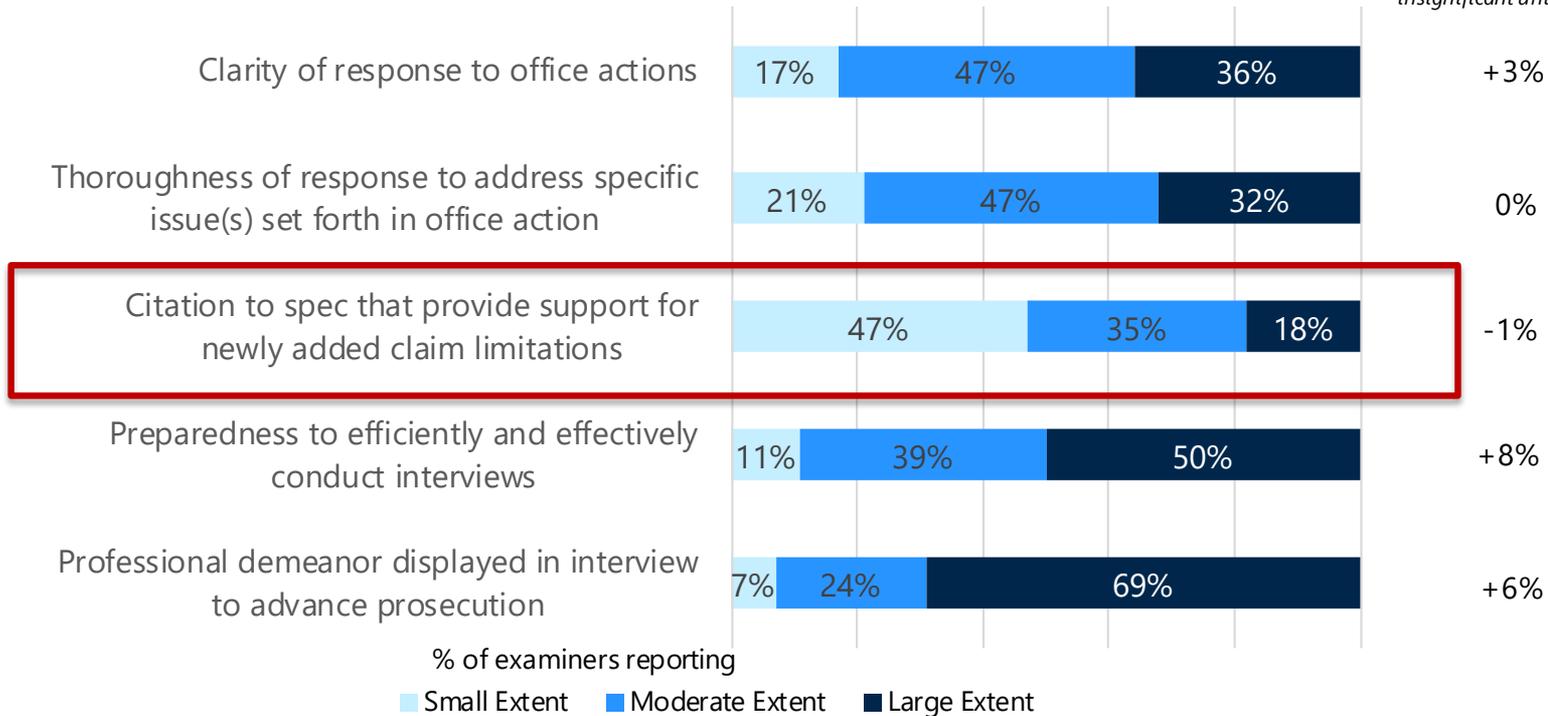
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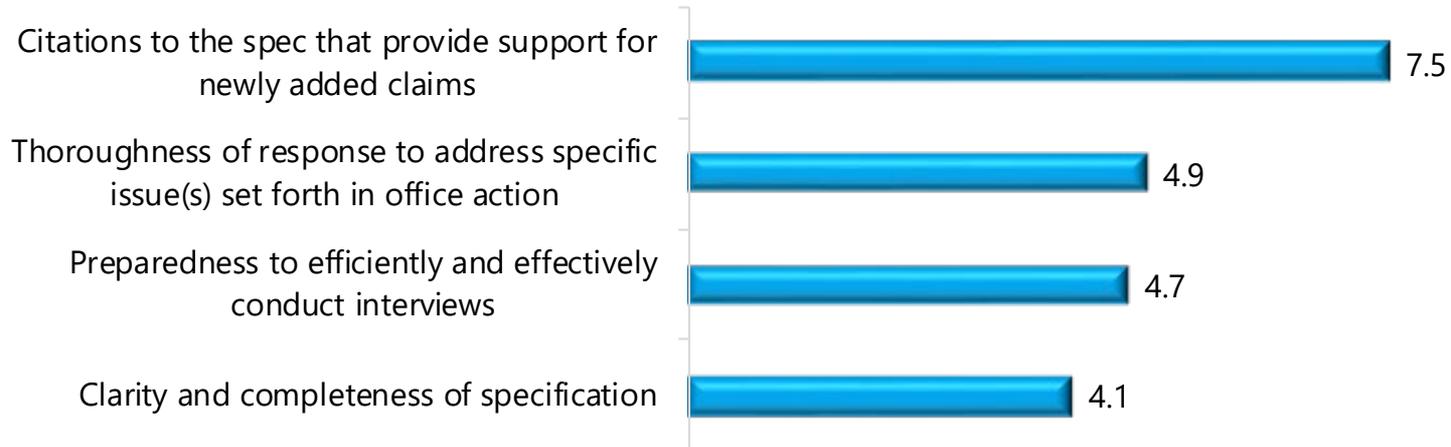


Source: USPTO FY22Q2 Internal Quality Survey

# External factors: key drivers

## Odds ratio of factors against perception of external quality environment

Citations to the specification that provide support for newly added claims was found to have the highest odds ratio against Overall External Factors that impact ability to provide high-quality examination. That is, if a respondent was satisfied with the citations to the specification, the respondent is roughly 7 times more likely to rate the overall external factors as good/excellent.



# What, if anything, would you like to see incorporated as part of the application filing process to facilitate patent examination quality?

- **File clear claims**

- Include in the filing process some mechanism to motivate applicants to provide claims with greater clarity and specificity, and also free from grammar, formatting and antecedent errors. Applicants need to understand the invention, write claims that are definite and delineate the boundaries, and use more conventional language with less obfuscation. Claims also need to be narrower, or at least not overly broad. Provide a clear delineation of all embodiments in the specification. It is very confusing when language such as “some embodiments,” “other embodiments,” or “various embodiments,” is used.

- **Set limitations (IDS references, claims)**

- Limit the number of references in IDSs to those pertinent to the claimed inventions. Applicants file hundreds of references and in some cases few to none are pertinent. Some examiners receive IDSs over 300 pages with 20-25 references per page. Tailor IDS fees to the number of references submitted. Also, consider a more specific IDS form that generates more accurate consideration time for examiners. Currently it is based on the number of IDS pages filed, which is not an accurate measure of its contents because NPL PDFs are not searchable and must be read individually, which takes longer than applications that load automatically into search engines. Also, limit the number of claims. It is common for applications to have 20 claims, with repeat limitations. Examiners feel applicants do it because it is free, but the cost is examination quality.

# What, if anything, would you like to see incorporated as part of the application filing process to facilitate patent examination quality?

- **Foreign translations**

Make requirements in the filing process of translated foreign applications. Quality decreases when claims are machine translated. The number of translated foreign applications is increasing, with machine translation and little to no editing, making it impossible or nearly impossible to determine the meaning of terms and scope of claims, along with 112(b) issues to the point of being unintelligible. Do not allow machine translations. Implement reviews of quality of claims during filings from other countries, or preliminary amendments to clean foreign translations prior to first action. Return those that are obviously incoherent upon a preliminary review to the applicant for better translation. One suggestion is a fast track rejection to allow a first action, without a full analysis, in situations where translation is exceptionally bad and only to be used in the worst cases.

- **Inventive concept clearly defined**

Encourage applicant to file claims that clearly define the invention, recite the inventive material in claim 1, and do not bury it deep in the dependent claims. Highlight or bold the inventive concept in the independent claims. Examiners need an explanation in clear terms early in the prosecution as to what is the main inventive concept. It is often difficult to determine what concept should be the focus in the prior art search. Clearly cited inventive concepts, and the main application field will also help with the initial CPC and C\* classification.

- **Better drawings**

File applications with better drawings that focus on the inventive portion of the application. Drawings need to be better than grainy black and white images with poor resolution. Allow applicants to file colored drawings and detailed photographs. Do not make it difficult for applicants to provide good drawings by requiring them to petition for color. Respondents also said drawings need more detail and labeling, such as a part indicator and numbering legends.



# Upcoming Events

## Blockchain & IP: Cross section of blockchain, patents, and open source

The US Patent & Trademark Office (USPTO) Eastern Regional Outreach Office (EROO) is creating a virtual stage to provide an information series showcasing the underlying blockchain technology and its applications in various industries. Through this series, you'll meet with stakeholders and affiliates in the distributed ledger technology and hear their current trajectory, dream with them about their future goals, and gain an understanding in the importance of intellectual property protections in this emerging technology.

### Register today

For more information, please email [EasternRegionalOutreachOffice@uspto.gov](mailto:EasternRegionalOutreachOffice@uspto.gov).

A question-and-answer session will follow the presentation. Please send your questions in advance or during the event to [EasternRegionalOutreachOffice@uspto.gov](mailto:EasternRegionalOutreachOffice@uspto.gov).

**This event is part of a series: [AI Partnership](#), [Blockchain & IP](#)**



# Upcoming Events

For more events and training sessions, visit the events page at

<https://www.uspto.gov/about-us/events>



# Thank you

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